PAN AFRICA CHRISTIAN UNIVERSITY

BACHELORS OF COMMERCE

END OF TERM EXAMINATION

DEPARTMENT: BUSINESS

COURSE CODE

COURSE TITLE: BUSINESS STATISTICS - DIPLOMA

ROYSAMBU CAMPUS - DAY

EXAM DATE: FRIDAY

TIME: 8.00AM – 11.00AM

INSTRUCTIONS

- This examination script consists of **six (6)** questions.
- Answer question ONE and ANY other three Questions.
- Show all your workings
- Read all questions carefully before attempting.

Write your **student number** on the answer booklet provided.

QUESTION ONE

Distinguish between the following terms:

a) Primary and secondary data (2Marks)
b) A pie chart and a histogram (2 Marks)
c) Nominal and ordinal measurements (2 Marks)
d) Discrete and continuous data series (2 Marks)
e) A sample and a population (2 Marks)

QUESTION TWO

A traffic inspector has counted the number of automobiles passing a certain point in 100 successive 20-minute time periods. The observations are listed below.

18	32	41	18	38	13	28	10	18	18
18	22	38	13	32	18	10	38	18	22
18	36	6	22	6	38	22	18	13	32
32	18	13	38	22	6	18	13	38	22
18	22	6	22	38	22	38	18	38	38

Required:

a) Organize this data into a discrete series (8marks)
b) Determine the mode (2marks)

QUESTION THREE

The following employees' wages were obtained from the salaries section of TENT Ltd in a given period. They are in Ksh '000'

8	22	31	8	28	3	18	9	8	8
8	12	28	3	22	8	9	28	8	12
8	28	7	12	7	28	12	8	3	22
22	8	3	28	12	7	8	3	28	12
8	12	7	12	28	12	28	8	28	28

Required:

a) Organize this data into a continuous data series (5marks)
b) Then determine the median (5marks)

QUESTION FOUR

The following frequency distribution table represents the production data of product X over the last five years:

Year	2016	2017	2018	2019	2020
Production('000' kgs)	2000	5000	1500	9000	1200

a) Determine the arithmetic mean (4marks)
b) Determine the standard deviation (6marks)

QUESTION FIVE

The following data was obtained from the Kenya Bureau of Statistics.

Commodity	**Year**	**Price (Ksh)**	**Quantity (Kgs)**
Sugar	2018	3400	11
	2019	4800	9
	2020	4300	10

Using 2019 as the Base year, determine the price index of 2020 using:

a) Fixed base method (5 Marks)
b) Chain base method (5 Marks)

QUESTION SIX

a) Using relevant examples, explain two ways in which data is collected (4marks)
b) Discuss any three ways of presenting data (6 Marks)